

Develop The Python Script

Team ID	PNT2022TMID48154
Project Name	IOT BASED SAFETY GADGET FOR CHILD SAFETY MONITORING AND NOTIFICATION

Develop the python scripts to publish details to IBM IoT Platform

```
Command Prompt
C:\Users\jalban>pip install wiotp-sdk
Collecting wiotp-sdk
  Downloading wiotp-sdk-0.11.0.tar.gz (96 kB)
    ----- 96.2/96.2 kB 98.2 kB/s eta 0:00:00
  Preparing metadata (setup.py) ... done
Collecting iso8601>=0.1.12
  Downloading iso8601-1.1.0-py3-none-any.whl (9.9 kB)
Collecting pytz>=2018.9
  Downloading pytz-2022.6-py2.py3-none-any.whl (498 kB)
    ----- 498.1/498.1 kB 33.5 kB/s eta 0:00:00
Collecting pyyaml>=3.13
  Downloading PyYAML-6.0-cp311-cp311-win_amd64.whl (143 kB)
    ----- 143.2/143.2 kB 32.6 kB/s eta 0:00:00
Collecting paho-mqtt>=1.5.0
  Using cached paho-mqtt-1.6.1.tar.gz (99 kB)
  Preparing metadata (setup.py) ... done
Collecting requests>=2.21.0
  Using cached requests-2.28.1-py3-none-any.whl (62 kB)
Collecting requests_toolbelt>=0.8.0
  Downloading requests_toolbelt-0.10.1-py2.py3-none-any.whl (54 kB)
    ----- 54.5/54.5 kB 44.3 kB/s eta 0:00:00
Collecting charset-normalizer<3,>=2
  Using cached charset-normalizer-2.1.1-py3-none-any.whl (39 kB)
Collecting idna<4,>=2.5
  Using cached idna-3.4-py3-none-any.whl (61 kB)
Collecting urllib3<1.27,>=1.21.1
  Using cached urllib3-1.26.12-py2.py3-none-any.whl (140 kB)
Collecting certifi>=2017.4.17
  Using cached certifi-2022.9.24-py3-none-any.whl (161 kB)
Installing collected packages: pytz, paho-mqtt, urllib3, pyyaml, iso8601, idna, charset-normalizer, certifi, requests, requests_toolbelt, wiotp-sdk
  DEPRECATION: paho-mqtt is being installed using the legacy 'setup.py install' method, because it does not have a 'pyproject.toml' and the 'wheel' package is not installed. pip 23.1 will enforce this behaviour change. A possible replacement is to enable the '--use-pep517' option. Discussion can be found at https://github.com/pypa/pip/issues/8559
  Running setup.py install for paho-mqtt ... done
  DEPRECATION: wiotp-sdk is being installed using the legacy 'setup.py install' method, because it does not have a 'pyproject.toml' and the 'wheel' package is not installed. pip 23.1 will enforce this behaviour change. A possible replacement is to enable the '--use-pep517' option. Discussion can be found at https://github.com/pypa/pip/issues/8559
  Running setup.py install for wiotp-sdk ... done
Successfully installed certifi-2022.9.24 charset-normalizer-2.1.1 idna-3.4 iso8601-1.1.0 paho-mqtt-1.6.1 pytz-2022.6 pyyaml-6.0 requests-2.28.1 requests_toolbelt-0.10.1 urllib3-1.26.12 wiotp-sdk-0.11.0
[notice] A new release of pip available: 22.3 -> 22.3.1
[notice] To update, run: python.exe -m pip install --upgrade pip
```

USN-15- Develop the python code for publishing the location (latitude & longitude) to IBM IoT Platform

```
python1.py - C:\Python\Python37\python1.py (3.7.0)
File Edit Format Run Options Window Help

import json
import wiotp.sdk.device
import time

myConfig = {
    "identity":{
        "orgid":"2a6zb4",
        "typeId":"NodeMCU",
        "deviceId":"12345"
    },
    "auth": {
        "token":"12345678"
    }
}

client = wiotp.sdk.device.DeviceClient(config = myConfig, logHandlers=None)
client.connect()

while True:
    name="smartbridge"
    #in area location

    #latitude= 17.42225176
    #longitude= 78.5458942

    #out area location

    latitude= 17.42225176
    longitude= 78.5458942
    myData={'name': name, 'lat':latitude, 'lon':longitude}
    client.publishEvent(eventId="status", msgFormat="json", data=mydata, qos=0, onPublish=None)
    print("Data published to IBM IoT platform:",myData)
    time.sleep(5)

client.disconnect()
```

